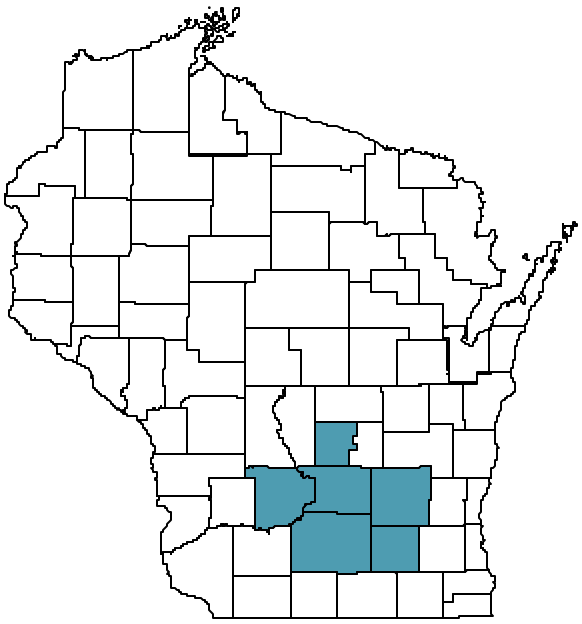
Workforce Development Area Profile

South Central Wisconsin

Columbia, Dane, Dodge, Jefferson, Marquette, and Sauk Counties.



The labor market is a constant ebb and flow of supply and demand. Too little demand for workers creates too much supply and unemployment increases. But too little supply of workers means job vacancies and lack of employment growth.

Every Workforce Development Area in the state should anticipate a tight labor supply condition by the end of the next decade. Planners in each area must understand the unique set of employment characteristics in their region to development a strategy to meet a future where demand will exceed supply.

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State of Wisconsin
Department of Workforce Development
January 2003 (rev. 3/2003)

- The Demand for Workers -

South Central Wisconsin Employment

To understand employers' current needs and estimate future needs, it is useful to ask how many people work in each industry and how each industry compares to others in terms of job growth.

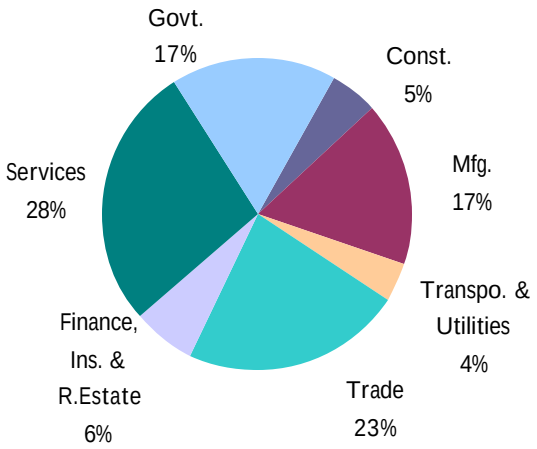
For all the diversity within and among the region's six counties, the industry composition of South Central Wisconsin (shown in the pie chart to the right) generally tends to reflect that of the state as a whole. Two sectors are noteworthy exceptions. Durable goods manufacturing provides 8.7 percent of the area's jobs and 12.5 percent of Wisconsin's jobs while government provides 22.2 percent of the jobs in the region and 14.6 percent of the jobs in Wisconsin. Manufacturing remains crucial in many places, especially Dodge (35.4 percent of jobs), Jefferson (31.8%) and Marquette (31.9%) counties, but Dane (10.3%) pulls down the average. On the surface, the hub of state government appears to be the dominant factor, but the state's flagship university also employs substantial numbers of people and helps attract employers that create more professional and technical jobs.

In recent years, increases in productivity, international competition and automation, along with a strong dollar, have prompted some to speculate that manufacturing employment represents a spent phase of economic development, while the services sector represents the future of economic progress. This is probably an overstatement. The manufacturing sector has struggled to mount a sustained comeback from the slowdown that began late in 2000, but there were more manufacturing jobs in 2001 than in 1996, so the bar graph below to the left shows positive growth in manufacturing. (Although final figures for 2002 were not available at this writing, manufacturing employment probably did not increase much between 1997 and 2002 and may have fallen.)

Both the construction sector and the transportation, communication and public utilities sector posted reasonably strong job growth from 1996 to 2001 (see bar graph to left) while remaining modest parts of the overall employment picture (see pie chart above). Strong 5-year growth figures for construction employment in South Central Wis-

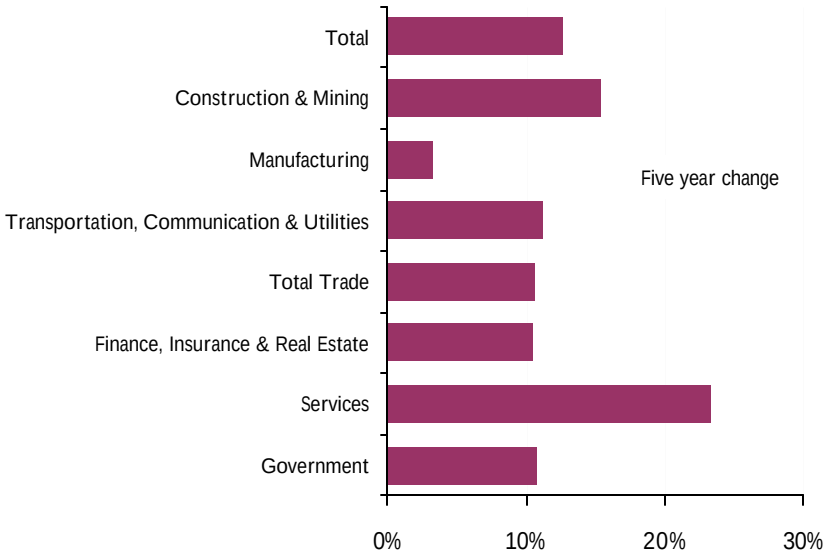
(Continued on page 2)

South Central Wisconsin Industry Distribution: 2001



Source: WI DWD, Nonfarm wage and salary estimates, revised March 2002

South Central Wisconsin
Employment Change by Industry Division: 1996 to 2001



Source: WI DWD, Nonfarm wage and salary estimates, revised March 2002

consin hide recent softness which seems to confirm national reports of sluggish business investment and a housing market which may soon start to cool (and may have started cooling already). The communications industry is also unlikely to add large numbers of workers in the near future, due to retrenching related to the glut of overcapacity built in the 1990s and recent accounting scandals.

What is NAICS and how is it different?

SIC	SIC divisions	NAICS* sectors	NAICS*
Agriculture, Forestry, and Fishing	01-09	11	Agriculture, Forestry, Fishing & Hunting
Mining	10-14	21	Mining
Construction	5-17	22	Utilities
Manufacturing	20-39	23	Construction
Transportation, Communication, and Utilities	40-49	31-33	Manufacturing
Wholesale Trade	50-51	42	Wholesale trade
Retail Trade	52-59	44-45	Retail trade
Finance, Insurance, and Real Estate	60-67	48-49	Transportation & Warehousing
Services	70-89	51	Information
Public Administration	91-97	52	Finance & Insurance
		53	Real Estate, Rental & Leasing
		54	Professional, Scientific & Technical Services
		55	Management of Companies & Enterprises
		56	Admin, Support, Waste Mgmt. & Remediation Srv.
		61	Education services
		62	Health care & Social assistance
		71	Arts, Entertainment & Recreation
		72	Accommodation & Food Services
		81	Other services (except Public Administration)
		92	Public Administration

*North American Industry Classification System

Since the 1930s, Standard Industrial Classification system (SIC) has defined the categories for industry employment estimates. The most recent revision to this system was in 1987. Major SIC categories appear on the left side of the table above and in the graphs on page 1. In 2002, preliminary estimates were available in SIC categories, but when they are revised, they will only be available in a new format called the North American Industrial Classification System (NAICS).

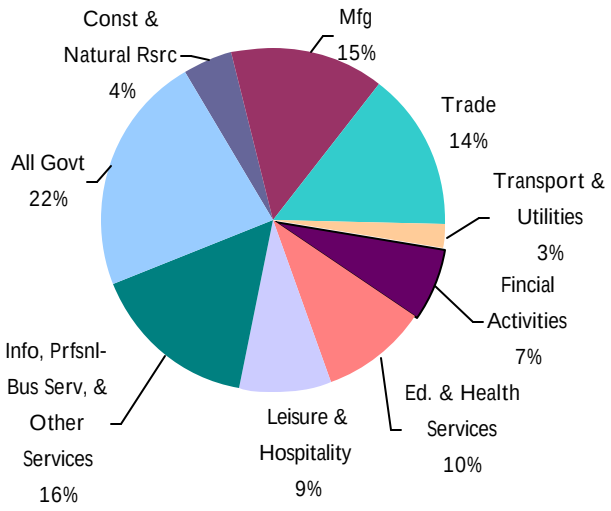
The most obvious difference is that Canada and Mexico will adopt NAICS along with the United States. Other differences are more subtle and more fundamental. Both systems use employers payroll reports to determine how many people work in each sector and how much they earn, but the category breakdowns differ (see chart above) and so does the methodology for assigning an employer to a category.

Where SIC focused on the nature of the goods produced or services provided, NAICS focuses more on how the establishment adds value. Some SIC categories are based on purchasers' perceptions of the similarity of the goods or services; NAICS groups employers based on the similarity of key inputs such as labor, capital equipment and raw materials. Although SIC treats all subsidiaries of an auto manufacturing company as auto manufacturers, NAICS would classify each establishment by its primary function, so jobs at the headquarters show up under a different category. The growing relative importance of services has fueled demand for more detailed information on service sectors and he NAICS categories above reflect an attempt to provide that detail.

The introduction of NAICS does not update or supplement SIC, it is new system to replace the current one. NAICS categories are configured to reflect broad, deep and crucial changes in what we produce and how we produce it. (See table above.) In the long run, evolving the measurement system to better match economic activities will offer more useful data on wages and employment by industry.

In the short run, the transition creates difficulties in analyzing an industry over time. In many cases, NAICS offers a category with a title similar to one that appears in SIC, but the new category definition will include a different set of establishments. Under SIC, the entire printing industry (including newspapers, publishers and other printers) was considered manufacturing. The new NAICS categories will split this group into one involving physical production of printed material (which will remain in manufacturing) and another involved in gathering information and editing it before publication (information services). Eating and drinking places (such as restaurants and bars) will move from the retail division of SIC to leisure and hospitality in NAICS. In short, "manufacturing" means something different under NAICS than it meant under SIC, so it will usually be impossible to compare SIC numbers (from years 2001 and earlier) to NAICS numbers (2002 and later).

South Central Wisconsin NAICS Industry Distribution: 2002



Source: DWD, Labor Market Information Section, ES-202, Jan. 2003

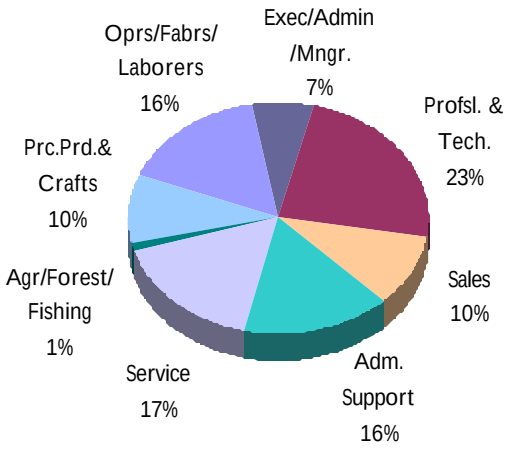
Eventually, some of these difficulties will be partially addressed by efforts to re-code SIC estimates into NAICS categories for years 1990 and later. Current re-coding plans include states and metropolitan areas. It is not known when the re-coding will be finished or whether non-metropolitan counties' data will be re-coded. Additionally, more detailed data will be available for metropolitan counties than for non-metropolitan counties. Individual categories and their composition will change from SIC to NAICS, but "total employment" estimates should remain comparable over time.

The pie chart on the upper right shows what proportion of South Central Wisconsin's jobs belong to each NAICS category. Two important aspects of NAICS emerge from these data: 1) While the "services" category of SIC covered a deceptively wide range of entry-level and professional positions, NAICS separates the data into more useful categories such as information services, business and professional services, leisure and hospitality services (which also include some establishments that used to be retail) and education and health services. 2) Although the level of detail has increased and the category titles are not directly comparable, NAICS paints a picture of the South Central labor market that we can recognize (at least in rough outlines) from old analysis done with SIC categories.

Government remains prominent. Because of public institutions' involvement with health care institutions, (the medical, nursing and health care programs work with hospitals), some of the jobs counted under government employment may be more closely related to health services than other government functions. The NAICS data above suggests that the South Central region is fairly close to the Wisconsin average (not shown) in terms of the number of jobs in the category called "information services, business and professional services, and other services". Page 4 will show that South Central residents are more likely than statewide counterparts to work in professional or technical occupations. Although the NAICS data above uses different categories than Census data on page 4, the differential would be consistent with data on educational attainment and income levels.

Some commentators might argue that South Central region is simply ahead of the state in the healthy and inevitable process of de-industrialization. This would overlook two key facts: Wisconsin remains among the most manufacturing intensive states in the nation and manufacturing remains a critical pillar outside Dane County. The knowledge-based economy, income growth, job growth and younger workers all seem dauntingly intertwined with metropolitan areas. For all the attention paid to education and cutting-edge businesses, we still lack economic development strategies that effectively address either the challenges of rural, manufacturing intensive areas or shrinking job opportunities and declining earning power facing people with high school diplomas or less.

South Central Wisconsin Occupations in 2008



Source: WI DWD, Bureau of Workforce Information, 2001

Previous sections focused on which industries employers belonged to and treated every worker as part of the employer's industry. Here, the focus shifts to workers' occupations, regardless of what industry their employers belong to.

While South Central Wisconsin's projected occupations (see pie chart to left) largely reflect statewide trends, there are a few differences. Projections suggest that operators, fabricators and laborers will account for a slightly smaller proportion of this region's workers than the state's workers in 2008 and that professional and technical workers will be slightly more prominent here than in the state as a whole. These projections were based on pre-recession data, when manufacturing was stronger and its outlook brighter. Revised projections are expected in spring of 2003.

The table below lists those occupations expected to generate the most openings each year. Perhaps the most important, and most often overlooked features of that table is

Occupations with the Largest Number of Annual Openings Due to Growth and Separations
WDA10-South Central: Columbia, Dane, Dodge, Jefferson, Marquette, Sauk

Occupational Title	1998-2008 Growth	Percent Change	Est. Average Annual Openings Growth	Separations[1]	Total[2]	Education and Training Typically Required[3]
Cashiers	1,270	14.8%	127	373	500	Short-term on-the-job-training
Retail Salespersons	1,270	12.1%	127	355	482	Short-term on-the-job-training
General Office Clerks	1,540	13.9%	154	306	460	Short-term on-the-job-training
Waiters & Waitresses	710	10.1%	71	387	458	Short-term on-the-job-training
General Managers & Top Execs	1,800	17.6%	181	179	360	Work exp. plus bachelor's or higher dgr.
Fast Food Prep/Service Workers	400	8.8%	40	250	290	Short-term on-the-job-training
Teachers, Secondary School	1,020	19.5%	102	167	269	Bachelor's degree
Food Preparation Workers	280	7.0%	28	220	248	Short-term on-the-job-training
Registered Nurses	1,200	19.5%	121	101	222	Associate degree
Janitors & Cleaners	420	5.8%	42	157	199	Short-term on-the-job-training
Assemblers & Fabricators	940	16.7%	94	100	194	Short-term on-the-job-training
Hand Packers & Packagers	860	22.1%	86	96	182	Short-term on-the-job-training
Systems Analysts	1,680	87.0%	168	12	180	Bachelor's degree
Nursing Aides/Orderlies/Attendants	960	17.1%	96	78	174	Short-term on-the-job-training
Elementary School Teachers	490	9.3%	49	122	171	Bachelor's degree
Landscaping/Groundskeeping laborers	850	29.6%	85	86	171	Short-term on-the-job-training
Helpers/Laborers/Movers	430	11.6%	43	115	158	Short-term on-the-job-training
Administrative Support Supervisors	720	19.0%	72	85	157	Work exp. in related occupation
Reception/Information Clerks	790	19.9%	79	76	155	Short-term on-the-job-training
Heavy Truck Drivers	790	16.4%	80	69	149	Postsecondary vocational training
Computer Support Specialists	1,320	91.0%	132	9	141	Bachelor's degree
Bartenders	-30	-1.0%	-3	131	128	Short-term on-the-job-training
Marketing/Sales Supervisors	700	16.5%	71	55	126	Work exp. in related occupation
Manufacturing & Wholesale Sales Reps	420	12.4%	42	83	125	Moderate-term on-the-job training
Secretaries, Except Legal or Medical	20	0.3%	2	119	121	Moderate-term on-the-job training

(1) Separations are an estimate of how many job openings there will be in each occupation due to people permanently leaving an occupation. Openings that occur due to people changing employers but remaining in the same occupation are not included.
(2) Total openings are an estimate of how many new entrants are needed in the occupation.
(3) Typically required means this is the most common way people are expected to enter the occupation.
Other notes: Self-employed, unpaid family workers and work-study students are not included. Railroad workers are not included, except in WDAs 7 and 8.

Source: WI DWD, Bureau of Workforce Information, 2001

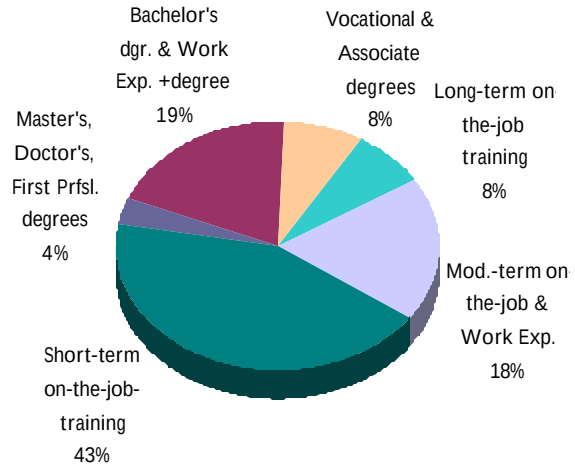
that it estimates how many openings will be attributable to growth in the occupation and how many openings will be due to people leaving the occupation permanently. A person changing employers but remaining in the occupation registers no change on that table. At first glance, 121 openings per year might make secretary look like a booming occupation. The figure may look a bit different when considering that the field is projected to add just 2 positions per year and the rest of the projected openings are attributed to people leaving the occupation.

While potentially useful, the "education typically required" column can also mislead readers. These figures estimate the education and training required of the people currently in the occupation *at the time they entered*. For the sake of argument, assume that a substantial number of people currently in an occupation (say secretaries) entered that occupation many years ago. Further assume that they have acquired education or training that was not necessary at the time they started but became necessary over time. When senior secretaries retire, their employers may need replacements with more education and training than the senior secretaries had when they started. (Unfortunately, available data does not indicate how many separations will be senior members of the occupation.) Employers rely to increasing degrees on technical colleges to provide training (even short- to moderate-term) that used to be on-the-job.

Of the 25 occupations projected to generate the most openings, just 5 of them typically require a bachelor's degree. Two are computer-related occupations where the outlook may have changed substantially since the projections were published. Two other occupations are secondary school teaching and primary school teaching. People leaving these occupations permanently account for more than 60 percent and 70 percent of the openings in those occupations, respectively.

The pie chart on the upper right shows how many of South Central Wisconsin's projected annual openings fall in each category of education and experience. These figures closely track state trends, except the category titled "Bachelors degree and work experience plus degree" is slightly more well represented in this region. Even so, the largest single segment of openings (43%) require short-term on-the-job training. Because wages and working conditions in these jobs often do little to keep workers in the occupation, the rate of separation (and resulting openings) might be inflated. Census figures (in the pie chart to the right) show that 11 percent of the population has not completed high school and another 30 percent has no more education than high school, so these entry-level jobs play a necessary part.

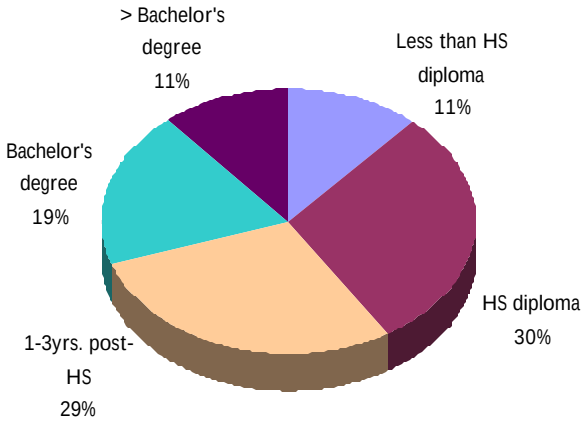
Education Typically Required for Projected Annual Openings in South Central Wisconsin



Source: WI DWD, Local Workforce Planning Section, 2001

Dane County constitutes 60 percent of South Central Wisconsin's population, and its residents hold 76 percent of the region's Bachelor's degrees and 83 percent of its graduate and professional degrees. Considering Dane County's composition (somewhat light in manufacturing and heavy in professional, technical and related jobs) and considering commuting patterns (employers rely heavily on inbound commuters) it seems likely that the openings requiring college degrees are concentrated in Dane County. With the state's second-highest concentration of residents over 25 with bachelor's degrees (24.8%) and highest concentration of graduate and professional degrees (15.8%) Dane has good reason to hope that it produces jobs requiring college degrees.

Education Attainment in 2000 in South Central Wisconsin



Source: US Dept. of Commerce, Census Bureau, *Census 2000*

- The Supply of Workers-

South Central Wisconsin Population

Population trends affect the supply of workers, the ability to attract employers and the demand for goods and services. Between 1991 and 2001, employers created roughly 86,000 jobs and the labor force grew less than 84,000. Wisconsin's Department of Administration estimated that 728,176 people lived in South Central Wisconsin as of January 2, 2002. (See table at lower left.) This represents growth of 2.5 percent from April 2000, well above the statewide rate of 1.7%. According to the Census Bureau, 12.6 percent of Wisconsin's population lived in the six South Central counties in 1990 and that proportion grew to 13.2 percent by 2000. The 2002 estimates suggest that the ratio has continued to increase, now reaching 13.4 percent. Between the 1990 Census and the 2000 Census, the area's population grew 15.4 percent and each of its six counties saw population growth above the statewide rate of 9.6 percent and only Jefferson County grew below the national rate of 13.6 percent.

Within the South Central region, the population distribution amongst the 6 counties remains much as it was in the 1990 Census and the 2000 Census. (See chart at lower right.) Dane County hosts 60 percent of the region's population, 62 percent of its births, 49 percent of its deaths, and 64 percent of its net migration (defined as in-migration minus out-migration). Of South Central Wisconsin's 728,126 residents, roughly 46 percent live in the region's ten largest municipalities and five of those ten are in Dane County.

The 2000 Census asked residents over 5 years old where they had lived in 1995 and 51 percent of South Central Wisconsin residents answered that they had been in the same house. Madison's student population pulls the average down below the national figure (54 percent in the same house) and the statewide figure (nearly 57 percent). Those people living in a different house within the same county made up a larger portion of Dane County than any other South Central county.

Nearly 13 percent of the region's residents hailed from another Wisconsin county. Marquette County led the pack in this category, reporting that over 18 percent of its residents had lived in another Wisconsin County in 1995. The next category, people from other states, constituted 8.2 percent of the region's population, lead by Dane (10.5%) and Marquette (8.9%). Housing cost differentials suggest that people move into different parts of the region for very different reasons.

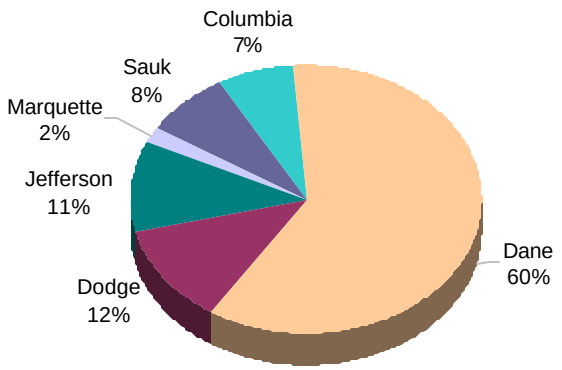
Just over 2 percent of South Central Wisconsin's population was from outside the United States, led by Dane County at 2.9 percent, with other counties at or below

(Continued on page 7)

Total Population

	2000 Census	January 2, 2002 Estimate	Percent change
United States	281,421,906	286,200,000	1.7%
Wisconsin	5,363,675	5,453,896	1.7%
South Central WDA	710,455	728,176	2.5%
Columbia	52,468	53,472	1.9%
Dane	426,526	438,881	2.9%
Dodge	85,897	87,083	1.4%
Jefferson	75,784	77,306	2.0%
Marquette	14,555	14,771	1.5%
Sauk	55,225	56,663	2.6%

2002 Population Distribution in South Central Wisconsin



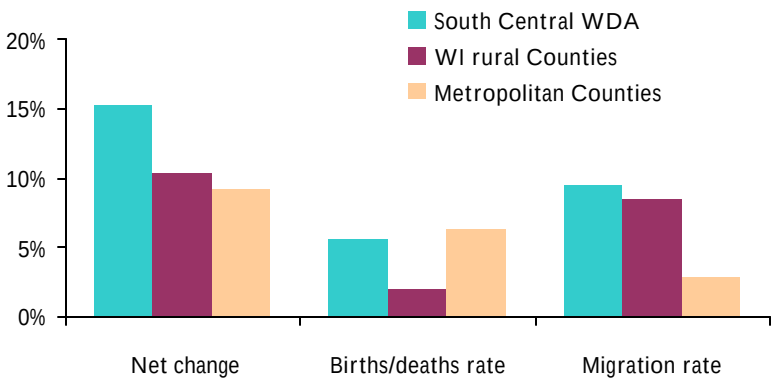
Source: WI Dept. of Admin., Demographic Services, 2002

1.5 percent. Indeed, Dodge is the only other South Central county able to attract more than 1 percent of its residents from outside the United States and its territories. This offers an interesting contrast: the most manufacturing-reliant county (Dodge) and the least manufacturing-reliant county (Dane) lead the pack in attracting people from other countries.

Each county in the region tends to host 60 to 70 percent of its population in the county's ten largest municipalities. Larger cities like Madison and the thoroughfares that connect them seem to attract (and result from) population growth. It is difficult to imagine satellites like Johnson Creek developing residential populations and retail trade with such success without the larger cities and major arteries that generate traffic.

On the upper right of this page, a graph shows that Wisconsin's metropolitan counties tend to have higher rates of natural increase (births minus deaths) and lower rates of net migration (in-migration minus out-migration) when compared to rural counties. The South Central region offers the education and career opportunities of a metropolitan area as well as the affordable housing of a non-metropolitan area, so it is able to sustain relatively strong net migration. Because a fair number of the area's in-migrants are closer to traditional child-bearing ages, the region has decent prospects of maintaining its birth rates, but this is not necessarily uniformly true across the region.

Components of Population Change in South Central WDA
Compared with other rural & metropolitan counties

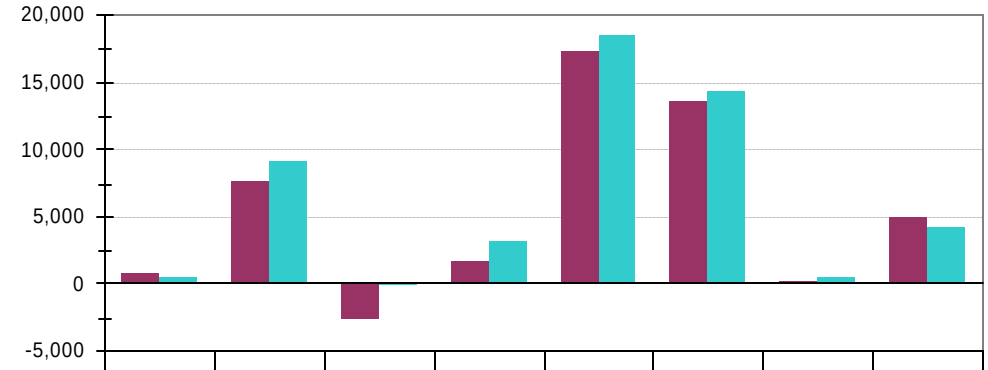


	Total increase 1990-2000	Increase from Births - Deaths	Increase from Migration
South Central WDA	94,158	35,065	59,093
WI rural Counties	162,770	31,627	131,140
Metropolitan Counties	309,136	212,060	97,079

Source: WI Dept. of Admininstration, Demographic Services, 2001

The graph below shows how many people each age group gained or lost between 1990 and 2000. For example, there were nearly 2,600 fewer females in 20- to 29-year-old group in 2000 than there had been in 1990. There are a few wrinkles in this figure. One is that South Central Wisconsin reported 93,415 births from 1961 to 1970 and 75,850 births from 1971 to 1980. These birth data suggest that the 20- to 29-year-old group would have shrunk far more had it not been for increasing net in-migration of 20- to 29-year-olds.

Population Change in 10-year Age Groups by Sex
1990 - 2000 in South Central Wisconsin



	0-9 yrs.	10-19 yrs.	20-29 yrs.	30-39 yrs.	40-49 yrs.	50-59 yrs.	60-69 yrs.	70+ yrs.
Female	887	7,719	-2,587	1,648	17,334	13,638	85	5,061
Male	571	9,128	-152	3,179	18,526	14,320	532	4,269

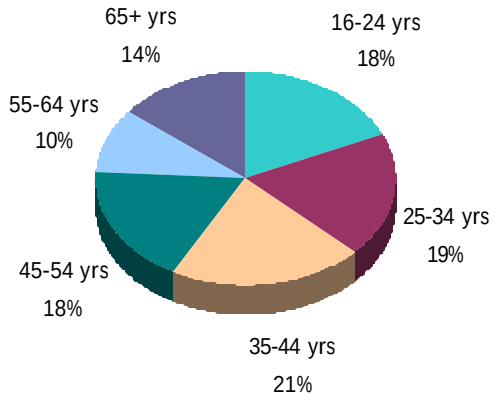
Source: WI Dept. of Admin., Demographic Services, 2002

Another wrinkle: nearly 76 percent of the 20- to 24-year-old females live in Dane County, and less than 64 percent of 30- to 34-year-old females live in Dane County. This might suggest that women are more likely to migrate into Dane County for college or that they are more likely to leave Dane County upon graduation (or both).

A third wrinkle arises when comparing several Censuses. In 1970, 93,232 people aged 9 and under resided in South Central Wisconsin. The 1980 Census

(Continued on page 8)

South Central County Labor Force Age Groups



Source: US Dept. of Commerce, Census Bureau, *Census 2000*

shows 99,809 10- to 19-year-olds. In 1990, there were 113,830 20- to 29-year-olds. In 2000, 113,616 people between 30 and 39 years old lived in the region. The region does not keep all the 20- to 29-year-olds who migrate in, but its long-term gains exceed long-term losses. Of the region's five non-metropolitan counties, four had more 30- to 39-year-olds in 2000 than 10- to 19-year olds in 1980 and the sixth (Jefferson County) doesn't lose 20- to 29-year-olds at the same rates as the others.

Another striking feature of the graph on the lower left of page 7 is the growth in two age groups where the baby boom generation is found (40 to 49 years old and 50 to 59 years old). The 10- to 19-year-old group shows healthy growth and promises to fill entry-level vacancies in the short term, but their successors (those aged nine and under) are not numerous enough to fill their shoes when today's 10- to 19-year-olds move up their career ladders. Moreover, baby boomers may vacate positions that are less suitable for today's 10- to 19-year-olds than for today's 30- to 39-year olds (whose numbers are grew more slowly).

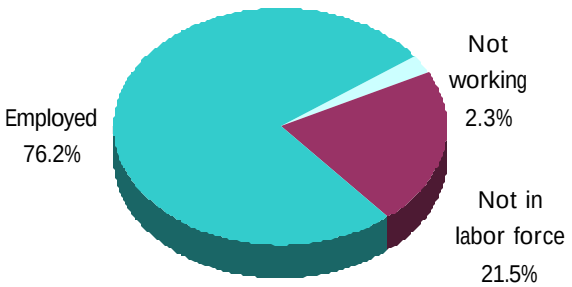
Larger cities (like Madison) often have more luck attracting younger workers and the employers who need them. Rural areas are aging faster and will probably demand more entry-level health care and household work. Given the increasing mobility of young people, especially those with education, rural areas face challenges retaining the people they have, and filling gaps left by older workers. If a few key employers decide to phase out positions rather than recruit, the labor shortage may seem less acute, but the employer's town can face even more difficulties attracting younger workers.

On the bottom right of this page, a pie chart illustrates labor force participation. The labor force is the sum of the employed (everyone working, even if underemployed) plus the unemployed (those not working, *and* looking for work). The labor force participation graph does not address those who are not eligible to work due to incarceration, institutionalization, active military service or insufficient age (under 16).

In 2001, 78.5 percent of the labor force eligible population worked or sought work. This figure, called the participation rate, was well above the national rate (68.3%) or the statewide rate (73.5%). In 2001, roughly 3.0 percent of the region's labor force was unemployed and that probably rose to somewhere around 3.4 percent in 2002. While this represents a substantial increase from the annual average of 1.9 percent in 1999, it is still well below preliminary 2002 figures for the national rate (5.8%) and the state (5.1%).

The category "not in the labor force" indicates that someone is not working and is not seeking work and includes many students, retirees and at-home parents. Available data do not indicate how many of those who are "not in the labor force" belong in these categories and how many are discouraged people who have abandoned their job searches. On the top left of this page a pie chart shows that the 16- to 24-year-old group is similar in size to the two age groups that follow it (25- to 34-year olds and 35- to 44-year-olds). School keeps many of these people from being available for full-time year-round employment and migration patterns suggest that many of these 16- to 24-year-olds will leave the area. When hiring picks up again, some employers may have to decide between phasing out certain positions and recruiting older workers more aggressively.

South Central 2001 Labor Force Participation



Source: WI DWD, Local Workforce Planning Section, 2002